

REMARKS

Claim 2 has been previously canceled, claims 1, 11 and 12 are currently amended. No new claims have been added or canceled by way of this response. Thus, claims 1 and 3-12 are currently pending and presented for examination. Applicants respectfully request reconsideration and allowance of the pending claims in view of the foregoing amendments and the following remarks.

Response to Rejections Under Section 102:

Claims 1, 3-4, 7-8 and 12 stand rejected under 35 U.S.C § 102(b), the Examiner contending that these claims are anticipated by Kullik (DE 19904119 A1) and claims 1, 5, 7, 9 and 12 are anticipated by Dunning et al. (USPN 3,951,573).

Claim 1:

Applicants' amended claim 1 recites in part:

... the rotor being supported by a first and second **magnetic radial bearings** and ... **magnetic thrust bearing** ... the stator being accommodated and isolated from the compressor in a separate stator space, which is delimited by a toroidally shaped wall section, radially and axially surrounding the stator, of the housing of the compressor unit, a gastight partition which extends between the stator and the rotor of the electric motor, and at least one end wall which extends between the partition and the housing of the compressor unit and **at least one further end wall arranged opposite the end wall and configured to isolate the stator from the compressor in cooperation with the partition and the end wall**, wherein the partition extends freely between the stator and the rotor of the electric motor ...

Claim 12:

Applicants' amended claim 12 recites in part:

... the rotor being supported by a first and second **magnetic radial bearings** ... and **magnetic thrust bearing** ... the stator being accommodated and isolated from the compressor in a separate stator space, which is delimited by a wall section, **radially and axially surrounding the stator**, of the housing of the compressor unit, a gastight partition which extends between the stator and the rotor of the electric motor, and at least one end wall which extends between the partition and the housing of the compressor unit and a **further end wall arranged opposite the end wall and configured to isolate the stator from the compressor in cooperation with the partition and the end wall** ...

In contrast, Kullik teaches a combination single stage centrifugal compressor and electric motor where the rotor is supported axially and radially by gas slide bearings **10, 11** and not a **multistage compressor** where the rotor is supported by "... **magnetic radial bearings** and ... a **magnetic thrust bearing**" as recited in claims 1 and 12. Furthermore, Kullik teaches a cylindrical can **9** having only one end wall and not a "...**further end wall arranged opposite the end wall and configured to isolate the stator from the compressor in cooperation with the partition and the end wall ...**" as claimed in claims 1 and 12.

Regarding Dunning et al, a combination single stage centrifugal compressor and electric motor is taught where the rotor is supported axially by a gas slide bearing and radially supported by journal bearings and not a **multistage compressor** where the rotor is supported by "... **magnetic radial bearings** and ... a **magnetic thrust bearing**" as claimed in claims 1 and 12.

MPEP 2131 requires "TO ANTICIPATE A CLAIM, THE REFERENCE MUST TEACH EVERY ELEMENT OF THE CLAIM."

In view of the above, claims 1 and 12 are not anticipated by Kullik or Dunning et al.. Furthermore, Claims 3-5, 7-9 are also patentable at least based on their dependence from claim 1 as well as based on their own merits. Therefore, Applicants respectfully request that the Examiner withdraw the Section 102 rejections.

Response to Rejections Under Section 103:

Claim 6 stands rejected under 35 U.S.C § 103(a) as being obvious over Kullik and also Dunning. Claim 10 stands rejected under 35 U.S.C § 103(a) as being obvious over Dunning in view of Brunet et al. (USPN 6,350,109). For at least the reasons discussed in connection with the Section 102 rejections, Applicants respectfully submit that claims 6 and 10 are also patentable at least based on their dependence from claim 1 as well as based on their own merits.

Claim 11 stands rejected under 35 U.S.C § 103(a) as being obvious over Dunning in view of Brunet et al. and further in view of Lee et al. (USPN 6,336,986).

Applicants' amended claim 11 recites:

... producing the inner layer and outer layer separately, in the form of an inner shell and an outer shell, the **external diameter of the inner shell ... being larger than the internal diameter of the outer shell;**
temporarily **increasing the diameter of the outer shell ...** or temporarily **reducing the diameter of the inner shell ...**, so that it is possible to push the inner shell into the outer shell ...

In contrast, as discussed above regarding the section 102 rejections, Dunning teaches a combination single stage centrifugal compressor and electric motor where the rotor is supported axially by a gas slide bearing and radially supported by journal bearings and not a **multistage compressor** where the rotor is supported by "... **magnetic radial bearings** and ... a **magnetic thrust bearing**" as claimed in claim 11. Therefore, Dunning in view of Brunet et al. does not teach Applicants' invention as asserted by the Examiner.

Furthermore, the process of Lee et al. teaches applying an axial compressive stress to the metal shaft **111** while heating/curing the composite tube **112** to avoid thermal growth of the metal shaft during the heating/curing phase to prevent shear stress at the composite/metal boundary to ensure a strong bond of the composite and metal shafts. (Abstract and col 3 lines 60 - 67).

In contrast, Applicants' claimed invention requires "... temporarily **increasing the diameter** of the outer shell by means of gas or liquid pressure, or temporarily reducing the diameter of the inner shell by **lowering the temperature** of the inner shell, so that it is possible to push the inner shell into the outer shell" Applicants' invention requires a clearance to be developed between the inner and outer shells because "...the **external diameter of the inner shell ... [is] larger than the internal diameter of the outer shell**" Therefore, the process of Lee et al. would not provide the required clearance between the inner and outer shells.

Furthermore, the process of Lee et al. is addressing the curing stage of producing the composite tube **112** whereas Applicants invention recites an already cured fibre-reinforced plastic.

Furthermore, Applicants respectfully submit that Lee et al. is non-analogous prior art. Lee et al. is directed toward a hybrid metal/composite automobile drive-shaft. Applicants respectfully submit that one of ordinary skill in the art of compressor unit design would not look to the field of automotive drive train design to help solve the relevant technical issue at hand.

MPEP 2141.01(a) states, "TO RELY ON A REFERENCE UNDER 35 U.S.C. 103, IT MUST BE ANALOGOUS PRIOR ART." Therefore, Applicants respectfully submit that Lee et al. is non-analogous prior art and therefore is not appropriate as a reference against Applicants' claimed invention.

In light of the above, Applicants respectfully submit that Lee et al is non-analogous art, but even if it were, the combination of Dunning, Brunet et al. and Lee et al does not teach Applicants claimed invention. Applicants respectfully submit that these claims are patentable and respectfully request the Examiner to withdraw the Section 103 rejections.

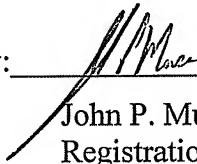
Conclusion

For the foregoing reasons, it is respectfully submitted that the rejections set forth in the outstanding Office Action are inapplicable to the present claims. Accordingly, Applicants respectfully request that the Examiner reconsider the rejections and timely pass the application to allowance. All correspondence should continue to be directed to our below-listed address. Please grant any extensions of time required to enter this paper. The commissioner is hereby authorized to charge any appropriate fees due in connection with this paper, including fees for additional claims and terminal disclaimer fee, or credit any overpayments to Deposit Account No. 19-2179.

Respectfully submitted,

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